AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in this application.

1 to 15 (canceled)

16. (Previously presented) A method of fabricating a flat product of zirconium alloy, comprising:

one of preparing and casting a zirconium alloy ingot containing at least 95% by weight of zirconium, and including impurities and alloying elements;

shaping the ingot in order to obtain a flat arrangement;

subjecting the flat arrangement to a β quenching operation under conditions that are determined to obtain within the flat arrangement an acicular structure at an end of the β quenching;

subjecting the flat arrangement, after the β quenching, to a rolling operation performed in a single rolling sequence without intermediate annealing, the rolling performed at a temperature lying in a range ambient to 200°C, with a reduction ratio lying in a range 2% to 20%; and

subjecting the rolled flat arrangement to an annealing treatment in the α range or in out of an α + β range, performed in a temperature range 500°C to 800°C for 2 min to 10 h.

17. (Withdrawn) A method according to claim 16, wherein the alloy element contents by weight are Sn = 1.2% to 1.7%, Fe = 0.07% to 0.20%, Cr = 0.05% to 0.15%, Ni = 0.03% to 0.08%, O = 900 ppm to 1600 ppm.

18. (Previously presented) A method according to claim 16, wherein the alloy element contents by weight are Sn = 1.2% to 1.7%, Fe = 0.18% to 0.24%, Cr = 0.05% to 0.15%, O = 900 ppm to 1600 ppm.

19. (Withdrawn) A method according to claim 16, wherein the alloy element contents by weight are Sn = 0.5% to 2%, Nb = 0.5% to 2%, Fe = 0.1% to 0.5%.

20. (Withdrawn) A method according to claim 16, wherein an alloy element contents by weight are: Sn = 0.5% to 2%; Fe = 0.1% to 1%; Cr = 0.1% to 1.2%.

21. (Withdrawn) The method according to claim 16, wherein alloy element contents by weight are: Nb = 1.5% to 3.5%; Sn = 0.5% to 2%.

22. (Previously presented) The method according to claim 16, wherein the rolling following the β quenching is performed with a reduction ratio of 5% to 16%.

23. (Previously presented) The method according to claim 16, wherein the rolling following the β quenching is performed with a reduction ratio of 5% to 10%.

24. (Previously presented) The method according to claim 16, wherein the cooling of the β quenching is performed at a speed of at least 1°C/s.

25. (Previously presented) A zirconium alloy flat product, obtained by the method:

one of preparing and casting a zirconium alloy ingot containing at least 95% by weight of zirconium, and including impurities and alloying elements;

shaping the ingot in order to obtain a flat arrangement;

subjecting the flat arrangement to a β quenching operation under conditions that are determined to obtain within the flat arrangement an acicular structure at an end of the β quenching;

subjecting the flat arrangement, after the β quenching, to a rolling operation performed in a single rolling sequence without intermediate annealing, the rolling performed at a temperature lying in a range ambient to 200°C, with a reduction ratio lying in a range 2% to 20%; and

subjecting the rolled flat arrangement to an annealing treatment in the α range or in out of an α + β range, performed in a temperature range 500°C to 800°C for 2 min to 10 h.

26. (Previously presented) The zirconium alloy flat product according to claim 25, wherein the element is formed into a fuel assembly element for a light water reactor.

27. (Withdrawn) The zirconium alloy flat product according to claim 25, wherein the zirconium alloy flat product is a box for a boiling water nuclear reactor.

28. (Withdrawn) The zirconium alloy flat product according to claim 25, wherein the zirconium alloy flat product is a grid for one of a boiling water reactor and a pressurized water reactor.

29. (Withdrawn) The zirconium alloy flat product according to claim 25, wherein the zirconium alloy flat product is a central tube defining, a circulation path.